

# RADIO.EDU

## "Our House is a Very, Very Fine House"

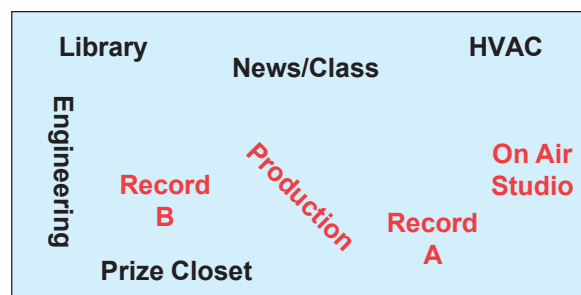
by John Deveck

[BALTIMORE, Maryland - August 2003] OK, so where were we...? Oh yeah, I was just starting to get into the nuts, bolts, crimps and frays of our new facility, the new WLOY radio station at Loyola College in Maryland. I landed here after 12 years at LPB doing station design, supply, repair, and other strangeness on a global scale. The school had a budget and wanted to make sure any facility they built would be a technology showcase to help attract new Communications students to the College. They brought on an Architect, a Sound Consultant and little old me, Underdog, to make it happen. When it was all mostly finished, they called up some friends from Baltimore's Little Italy station and made me an offer I could not refuse...

We already covered the planning and layout process in the last column, so let us start with the basic functions and equipment in each room and devote more focus on the "what and why" questions, OK?

### COME ON, FEEL THE NOISE

WLOY has 3 news desks in the main room, which doubles as a classroom, an On Air Studio, two Recording rooms (A & B), Production, a Library and my windowless cave in Engineering. Each of the rooms is wired back to the Engineering space so we can feed them anywhere – in or out of house, as needed. Since the On Air Studio was the focus of the initial design and build, we will start there, and consider the details of the other rooms in our next column. Since certain commonalities exist through the whole facility, such as microphones, CD players and such, the On Air Studio is the model for the other work stations and rooms.



On Air had to include interview capability in case other studios were not available. So, with help from Vince Fiola at Studio Technology, we designed furniture that would fit the space, allow good visibility, and be comfortable for up to 5 people. Vince worked with our budget to come up with a nice piece of furniture his guys could install in a few hours, yet looked like it cost a lot more! We have been very happy with the use of the space and managed to have 5 people interviewed simultaneously, although a bit tightly. It really helps, since we need to have the other studios free for classes and production work as much as possible.

Our campus, like most, runs a digital PBX which tends to wreak havoc with telephone hybrids and codecs. Fortunately, our telecom folks are very flexible and worked to put analog lines into several places for our JK Audio Innkeepers. I had tried these at a number of NABs over the years and started using them in installations at LPB.

We always had great response, pardon the pun, and their survival in college stations made them a sure bet. JK introduced a new interface for PBX systems at NAB 2003 and I hope to start using them in the fall. I assume it will do what we need (Joe does seem to be able to do that consistently!) and we will use them in other spaces around campus for remote connections.

Since we have students as our DJs, we needed a delay. Just as we were ordering products for the project, Symetrix discontinued their low cost analog delay, so in went a Symetrix AirTools Digital Delay. Which leads

me to a rant: The cost of delays is nuts! Someone out there has to be able to make one at a reasonable price. They are wonderfully simple units, from the flashing light to the big red "Dump" button, and the students got the message very quickly. But a starting point of \$2,000 is prohibitive for most educational station budgets. I'll bet someone making a \$500-750 unit would clean up in lesser markets!

### KICK OUT THE JAMS

Microphones are always a tough choice in a studio, especially when they could be used for all sorts of applications. In an effort to keep the whole feel uniform, reasonably priced and sounding good, we went with Studio Projects B1 microphones in all the main positions in the station. It is tough to argue with a good sounding sub-\$100 condenser! If you have a chance, try to check out their line, it is very nice for the price (\$100-\$1000 range including higher end tube models).

We have used 15 of the B1s and a handful of the rest in WLOY and only had a few broken shock mounts (which has been redesigned). Of course, the LPB Silent Boom holds every microphone in the place (as though I would use anything else!). I am still waiting for that patent paperwork, though, Tom.

Microphone Preamps are almost as tough a choice as microphones. We had space considerations as well as budget issues to deal with here. The Aphex 207 offered dual microphone preamps in a single rack unit, which allows us to squeeze 5 channels into 3 RU, and keep things clean. They provide enough basic button control to deal with typical interviews.

We are considering some more specialized changes in the interview area as so many of our discussions include inexperienced speakers. Some very basic multi-channel limiting will probably be added shortly just to keep a cover on those that cannot decide whether they fear or want to eat the microphone.

Main mixing is through the LPB Dynamax MX18 console, which allowed us to bring all the sources in on single channels and only double up inputs for remote studio feeds. We did need to use some Henry Super Relays to fire the LPB On Air lights, which are located in our airlock and outside the studios. Henry Logicconverters help with the interfaces of some machine remote starts and the console.

### BOOM, SHAKE THE ROOM

Studio monitoring in all the rooms is via LPB Spatial Ones, fed by Hafler P1500 or P1000 amplifiers. After a number of tests at NABs and installs, I have found the Hafler units sound great at low power levels and work very well with the highly efficient Spatial Ones.

We have nice clean sound, even when the students get a bit overzealous and try to blow out the windows. One of the first additions to the equipment rack was a locking security cover for the P1500 to make darn sure that the students could not actually knock out any walls!

We have 2 CPUs in the air studio, one for production and one for automation service. Cool Edit Studio (4 track) does duty as a quick editor for students that want to record callers, and play their requests later. We considered a number of options here, but Cool Edit gave us the best quick editing and matched our plans for the News desks.

We run ProTools in the Recording and Production rooms, but that is another story. Cool Edit really makes things simple for students, giving them the ability to also produce quick news pieces and run them back as needed. We have been very happy with it, but will wait and see what happens with Adobe ownership of Syntrillium – maybe they will port it to the Mac?

The second CPU pulls automation duty and runs 11 Software's Jockey Pro LT for our automation needs. We have the audio server located in the Engineering office, but pull files to the Air computer for playback of schedules. The software has very simple percentage-based schedule controls and allows manual creation as well.

The students have picked it up very quickly and make fewer mistakes than I do! We have been live 24/7 since March 19th with the Jockey Pro LT system filling in all the gaps in DJ times and running solo all summer. So far, I have rebooted the on air machine 3 times, only once for unknown reasons. The server holding the 23,000 song library – yes I did say 23,000 (and growing fast) – has NEVER had to be rebooted. OK, it is an IBM x345 running Windows 2000 Server and very little else, but hey, Jockey Pro LT was only \$99!

All of our studio audio is routed around to various devices and other studios using Broadcast Devices UTA-200 DAs that were custom built for each application. Individual cards are adjustable and include LEDs for easy level monitoring. We feed Audition and Program feeds back to Engineering, as well as the delayed air feed.

Bob Tarsio, at Broadcast Devices, went out of his way to make sure all our needs were met in configuring the DAs. These DAs reappear throughout the station, but really are the core routing for the Engineering room. Six of them take the Audition and Program feeds from the various studios and feed them to all of the other studios so that we do not need a router.

For the basic input and output devices, the studio includes a pair of Technics SL1200 MKII turntables (although many of the students wonder what they are), which are just indestructible in my experience. We used a variety of Denon units in the studio, including the 620T CD-Cassette combination unit and the Denon DNC630 CDs based on experience.

The debate over CD unit selection is a lengthy one. There is a school of thought that says you can buy dozens of cheap CD units for the cost of one really "pro" model. I would agree, but you also need to consider the downtime and the appearance to the students of the equipment. I have found that they show more respect to "pro" grade equipment than they do to "consumer" gear they recognize.

One of the keys to keeping students involved and concerned about the station is to make sure they know it is special. Denon's units are very durable, look different than consumer gear and do not really cost two arms and a leg. And, unlike the old cart-style boxes, you have no issue getting students to understand them. The combi-unit gave us the cassette needed for students to tape shows and provided a backup CD unit for them to use for music beds under their reading.

It took a lot of time to find components that let us make a solid, functional studio, that would endure college students and still meet our limited budget needs. While there may be some upgrades in the future, most of the original material will stay right where it is until we wear it out!

If you are interested in more details on any of these choices, please feel free to contact me and I will try to help. There is very often a middle ground between budget and desire and I think we have managed to stay there and give the students the best of both worlds.

John Deveck is the Operations Manager of WLOY at Loyola College in Maryland, and former Sales Manager of LPB Communications. He has spent a silly amount of time working with odd situations and low budgets to make educational radio stations happen. He is available at wloy@loyola.edu or 410-617-5349.

